

## PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To:

FENSTER, MAIER  
FENSTER & COMPANY  
INTELLECTUAL PROPERTY 2002 LTD.  
P.O.Box 10256  
IL-49002 Petach Tikva  
ISRAELNOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT  
(PCT Rule 71.1)Date of mailing  
(day/month/year)

10.05.2004

Applicant's or agent's file reference  
306/02657

## IMPORTANT NOTIFICATION

International application No.  
PCT/IL 02/00664International filing date (day/month/year)  
12.08.2002Priority date (day/month/year)  
14.03.2002

Applicant

AELIS PHOTONICS (ISRAEL) LTD. et al.

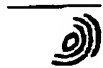
1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the international  
preliminary examining authority:European Patent Office  
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## PATENT COOPERATION TREATY

## PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 306/02657		<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/IL 02/00664	International filing date (day/month/year) 12.08.2002	Priority date (day/month/year) 14.03.2002	
International Patent Classification (IPC) or both national classification and IPC H04B10/18			
Applicant AELIS PHOTONICS (ISRAEL) LTD. et al.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of      sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>			
Date of submission of the demand  13.10.2003		Date of completion of this report  10.05.2004	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2339 - 0 Tx: 523656 opmu d Fax: +49 89 2339 - 4465		Authorized Officer  Ribbe, A  Telephone No. +49 89 239 1-6054	



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. **PCT/IL 02/00664**

## I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

### Description, Pages

1-18 as originally filed

### Claims, Numbers

1-37 as originally filed

### Drawings, Sheets

1/5-5/5 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.1(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	2-33
	No: Claims	1, 34-37
Inventive step (IS)	Yes: Claims	
	No: Claims	1-37
Industrial applicability (IA)	Yes: Claims	1-37
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

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**Re Item V****Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Reference is made to the following documents:

D1: WO0167644  
D2: WO0219001  
D3: WO9710658  
D4: US6137604

**Novelty**

- 2.1 Using the wording of the present claim 1, the document D3 discloses (the references in parentheses applying to figure 2 of this document):

Apparatus for correcting distortion (20) on an optical transmission link carrying a multiplicity of optical transmission channels (14), the apparatus comprising:  
an adjustable optical equaliser (20), through which a plurality of said channels pass;

a field sampler that samples signals passing through said equaliser, such that a plurality of channels passing through the adjustable equaliser are separately sampled (25), and

a controller (26) that receives the samples, determines control parameters for the equaliser therefrom and adjusts the equaliser, responsive to said determined control parameters (27,28).

The subject-matter of claim 1 is therefore **not novel** (Article 33(2) PCT).

- 2.2 The Applicant states that claim 34 clearly defines a system in which the input signal is split into two paths in a parallel manner as in figure 4 of the application, however the present claim 34 also encompasses a system having a main line and a side line as described in D3, figure 4.

Referring again to figure 4 of D3, the first correction apparatus (filter 30) is placed

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on the side path and the second correction apparatus (filter 20) is placed on the main line. The beam splitter (22,23) splits the signal into two paths (main line and side path), each carrying substantially the same channels. The controller adjusts the parameters of the main line filter responsive to the compensation in the side path.

The subject-matter of claim **34** is therefore **not novel** (Article 33(2) PCT).

- 2.3 Furthermore, the additional features of claims 35-37 are all disclosed in D3 and are therefore **not novel** (Article 33(2) PCT).

**Inventive step**

- 3.1 The additional features of claims 2-5, 9, 13-15 and 33 are all disclosed in D1.
- 3.2 The additional feature of claims 6-8, where the tunable optical filters comprise a beam splitter and differential delay is known from document D2.
- 3.3 The additional features of claims 16-32 are all different variations on how the controller determines and sets the initial control parameters. These methods are all well known and obvious for the man skilled in the art.
- 3.4 The dependent claims 10-12 refers to an embodiment where some of the channels are passed through an additional distortion correction apparatus. To divide the wavelength band into sub-bands and then correct each sub-band individually is well known from the prior art, see for example document D4, abstract and figure 2.

Hence, claims 2-33 of the present application **cannot be considered as involving an inventive step** (Article 33(3) PCT).